DOCUMENT RESUME

ED 235 557 EA 016 116

AUTHOR Harrison, Rose
TITLE A Descriptive Study of the Perceived Influence of Institutional Interruptions on the Morale and Work of Teachers and Pupils in Elementary Schools.
PUB DATE Apr 83
NOTE 33p.; Full text of ED 231 041, a summary of this paper, was presented at the Annual Meeting of the American Educational Research Association (Montreal, Quebec, Canada, April 11-15, 1983).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Attention; *Classroom Environment; Elementary Education; Elementary School Students; *Student Behavior; *Teacher Morale; Time on Task
IDENTIFIERS *Interruptions

ABSTRACT

Because studies have shown that classroom distractions can interfere with school activities, the effects of several kinds of interruptions on elementary school students are described and measured for their frequency of occurrence, the time required for recovery of concentration, and their influence on morale and concentration. Using a sample of 65 teachers and 62 students from 8 public elementary schools in New York City, a survey determined and compared teachers' and students' perceptions about three major types of classroom distractions: pullout programs, visitors, and school intercom systems. Results indicate that teachers and pupils both held that morale was not affected by distractions, that visitors affected concentration, and that approximately one-half hour daily per student was consumed in trying to eliminate distractions. Teachers and students differed, though, in that students' behaviors were more significantly affected by interruptions than were teachers', that pupils thought the interruptions more frequent than did their teachers, and that all three forms of interruptions interfered with students' work but not necessarily with teachers' work. (JW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED2355557

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Rose Harrison

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

A DESCRIPTIVE STUDY OF THE PERCEIVED INFLUENCE OF INSTITUTIONAL INTERRUPTIONS ON THE MORALE AND WORK OF TEACHERS AND PUPILS IN ELEMENTARY SCHOOLS

Dr. Rose Harrison
Pace University
New York, New York

Paper Presented at AERA Annual Meeting

Montreal, Canada

April 11-15, 1983

EA 016 116

A Descriptive Study of the Perceived Influence of Institutional Interruptions on the Morale and Work of Teachers and Pupils in Elementary Schools

Dr. Rose Harrison
Pace University
New York, New York

Statement of the Problem

Classroom distractions generated by institutional interruptions may be creating a unique dilemma for teachers and pupils; that is, the very school organization that requires them to maintain time and work schedules paradoxically produces interruptions that could interfere with the accomplishment of these objectives. As teachers and pupils struggle to cope with this predicament, not only could their performance be affected, but also, their attitudes toward the school as a workplace.

It appears, therefore, that an investigation of the subject of institutional interruptions from the perspective of the teacher and pupil is both desirable and warranted.

Purpose of the Study

The purpose of the study was to examine the effect of three types of institutional interruptions: 1) out-of-class pupil instruction (pullout programs); 2) visitors; and, 3) the intercommunication system, as perceived by teachers and as perceived by pupils on two selected variables, morale and work.

Theoretical Framework

While distractions and interruptions have been associated with a variety of educational concerns, the literature tends to focus upon: a) their effect on individuals; b) the ability of individuals to cope with these and other environmental demands; and, c) the influence of environmental factors on classroom proceedings.

Theoretical writings on classroom ecology suggest that an interrelationship exists among all components of the learning environment: individuals, settings and structures. (Barker, 1968; Bronfenbrenner, 1976; Doyle and Ponder, 1975; Gump, 1967; 1969; IR & DT, 1979). According to these views, it is the interaction among the components of the setting which may shape observed behavior, as well as, determine the nature of classroom activity.

Empirical research concerned with the impact of environmental factors on pupil behavior indicates that pupils' auditory and listening skills can be negatively influenced when sound distractions are introduced into the setting. (Nober, 1973; Price, 1969).

Studies related to the individual's ability to cope with environmental factors show that distractions may be most detrimental to those pupils least capable of adjusting to variations in the setting or to abrupt shifts in time; that is, pupils who are low achievers, highly distractible or who may have difficulty organizing their behavioral fields. (Werner and Simpson, 1974; Brackup and Knopf, 1978; Fowler, 1978; Steinkamp, 1980).

Investigations related to teaching and classroom climate suggest that distractions and interruptions can interfere with functions considered to be essential for effective teaching, classroom management and the social experience of schooling: pacing of learning tasks; continuity of instruction; time-on-task; and, smoothness of instructional moves. (Tikunoff, et al., 1975; Grannis, 1975; Kounin, 1970; Lortie, 1975; Smith and Geoffrey, 1968; IR & Dt, 1979).

Methodology

The research involved a descriptive correlational study using survey techniques. The survey was conducted during the period from November, 1980 through June, 1981. The sample consisted of 65 teachers and 62 pupils who were recruited on a voluntary basis from eight public elementary schools in the Borough of Manhattan, New York, New York.

The researcher, as sole interviewer, administered the survey instrument to the teachers on an individual basis and to the pupils on a small group basis. The survey instrument consisted of open-ended and closed-end items and was to designed to answer the six research questions. These questions were concerned with: a) determining the perceptions of teachers and those of pupils with respect to the frequency of occurrence and the distraction elimination time of the three institutional interruptions; b) determining the perception of teachers and those of pupils with regard to the effect of the three institutional interruptions on their morale and work; c) comparing the perceptions of teachers with those of pupils with respect to the frequency of occurrence; distraction elimination time; and, effect on morale and work of the three interruptions researched;

d) determining whether significant differences exist among the three institutional interruptions with regard to the effect on morale and work, as perceived by teachers and as perceived by pupils; and, e) determining whether relationships exist between perceived frequency of occurrence; distraction elimination time and perceived effect on morale and work for each of the three institutional interruptions, on the part of teachers and on the part of pupils.

Data Source

Descriptive and inferential statistics were used to analyze the data. All tabulations and calculations were performed using the Statistical Package for the Social Sciences (SPSS) cammed computer package. Responses to closed-end questionnaire items were coded and keyed for computer analysis. Responses to open-end items were content-analyzed and also coded for computer analysis. The statistical treatment of the data consisted of: frequency distributions, means and standard deviations; Mann Whitney U-Tests; Wilcoxon Rank Sum Tests and Spearman Rank Order Correlations.

Results and Conclusions

Frequency of Occurrence

The results indicate that teachers and pupils perceived that the three institutional interruptions: a) pullout programs; b) visitors; and, c) the intercommunication system occurred between six and eleven times daily.

Insert Table 1 and Table 2 here

As shown on the Tables, the subjects perceived that interruptions by "visitors" were the most frequent occurrences. (Teachers: $\bar{X}$ = 3.49, S.D. = 2.72); (Pupils: $\bar{X}$ = 3.90, S.D. = 2.27).

Relationships between Frequency and Effect on Morale and Work

Some relationships were found to exist between perceived frequency of occurrence of an interruption and perceived influence on morale and work on the part of teachers and on the part of pupils.

Insert Table 18 and Table 19 here

We note on Table 18 for teacher perceptions, that the frequency with which the "intercommunication system" interruptions occurred was significantly correlated with every morale and work item. Additionally, the frequency with which the "visitors" interruptions occurred was significantly correlated with six of the seven morale items; and, with six of the eight work items.

On Table 19 for pupil perceptions, we find that the frequency with which the "pullout programs" interruptions occurred was significantly correlated with every morale item, except one. In addition, the frequency with which "visitors" and "intercommunication system" interruptions occurred was significantly correlated with such work items as: "way pupils behave", "allotment of time" and "individualized instruction".

It is concluded, therefore, that the frequency of occurrence of an interruption could be a factor influencing the attitude and behavior of teachers and pupils. This finding is important when considered within the context of related research (IR & DT, 1979; Gump, 1969) which suggests that the three types of interruptions studied may represent but a small

percentage of all interruptions perceived by teachers and pupils to occur in classrooms.

Distraction Elimination Time

Teachers and pupils were found to perceive that about one-half hour of daily classtime was consumed in eliminating the distractive effects of all three institutional interruptions.

Insert Table 2 and Table 4 here

As indicated on the Tables, the subjects perceived that interruptions by "visitors" consumed the most distraction elimination time of the three types researched. (Teachers: $\bar{X}$ = 3.89, S.D. = 3.80); (Pupils: $\bar{X}$ = 3.69, S.D. = 3.70).

Relationship between D.E.T. and Effect on Morale and Work

Some relationships were found to exist between perceived distraction elimination time of the three interruptions and perceived impact on morale and work, on the part of teachers and on the part of pupils.

Referring to Table 18 once more, we note that with respect to teacher perceptions, the distraction elimination time for "pullout programs" and "the intercommunication system" interruptions was significantly correlated with the morale items. Interestingly, no significant correlations were found for the D.E.T. associated with "visitor" interruptions. The results for the work items were similar to those found for morale.

As shown on Table 19 for pupil perceptions, we note that the distraction elimination time for "visitors" and "the intercommunication system" interruptions was significantly correlated with several morale items, while that for "pullout programs" interruptions was significantly correlated with five of the eight work items.

Thus, we conclude that perceived distraction elimination time of an interruption could be a factor influencing teacher and pupil attitude and behavior. These results are considered to be important, especially when discussed in terms of related studies (IR & DT, 1979; Gump, 1969) which indicate that the time associated with eliminating the distractive effects of all three types researched may represent but a small proportion of all distraction elimination time perceived by teachers and pupils to be consumed for all interruptions occurring in classrooms.

Perceived Influence on Morale

While frequency and distraction elimination time were found to be factors possibly influencing morale, teachers and pupils were found to perceive that none of the interruptions researched had an influence on this area, except that these were viewed as "unpredictable events".

Insert Table 7, Table 8 and Table 9 here

We see on the Tables for teacher perceptions that "visitors" interruptions were the most unpredictable (about 58%); "pullout programs" were the next-most unpredictable (about 52%); and, "the intercommunication system" were least unpredictable (about 27%).

Insert Table 10, Table 11 and Table 12 here

As indicated on the Tables for pupil perceptions, we find that "visitors" interruptions were most unpredictable (about 60%); "pullout programs" were the next-most unpredictable (about 42%); and, "the intercommunication system" were least unpredictable (about 33%).

Therefore, it is possible that while individual attitudes may not be affected by these forms of distractions, persons could be exhibiting some stress reactions and performance degradation. Studies on the topic indicate that unpredictable and uncontrollable aversive environmental stimuli are likely to produce such behaviors. (Glass and Singer, 1972; Lofchie, 1953; Lortie, 1975; Slater, 1980; Twiton and Anderson, 1979).

Perceived Influence on Work

With regard to the results on work, responses were different for each type of institutional interruption. Although teachers and pupils perceived that the "visitor" type interruption affected their ability to work, (See Table 8 and Table 11) the groups differed with respect to the other two forms. Teachers perceived that "the intercommunication system" interruptions had little influence on work, (See Table 9) while the "pullout programs" type drew mixed reactions. (See Table 7).

On the other hand, pupils perceived that both the "pullout programs" and "the intercommunication system" interruptions had an impact on work. (See Table 10 and Table 12).

Comparison between Teacher and Pupil Perceptions

The results reported above suggest that teachers and pupils could be viewing their worlds differently, especially with respect to the work item, "pupils' social behavior which interfered with work". In this instance, as with further analyses of the data, pupils' morale and work were perceived to be more significantly influenced by all three institutional interruptions than were teachers'.

Insert Table 13, Table 14 and Table 15 here

Referring to Table 13, we note that pupils were significantly more influenced by "pullout programs" interruptions than were teachers in such work areas as: "pupils' social behavior"; "individualized instruction"; and, "distraction from work".

As indicated on Table 14, we find that pupils' morale area, "sense of accomplishment"; and, their work areas: "pupils' social behavior"; "preparing, implementing and assessing work"; "teacher/pupil interaction"; and, "distraction from work" were significantly more affected by the "visitors" interruptions than were teachers.

Noting Table 15, we see that "the intercommunication system" interruptions had more impact on three of the pupils' morale items than these had on teachers' morale. Additionally, this type of interruption had more significant influence on five of the eight work items than it had on teachers'.

Relative Impact of Three Interruption Types

Regarding the relative impact of the three institutional interruptions, teachers and pupils perceived that "visitors" interruptions more greatly affected their morale and work than did the other two forms.

Insert Table 16 and Table 17 here

Of the latter two types, "pullout programs" interruptions had more impact on teacher morale (See Table 16), while the "intercommunication system" interruptions had more perceived impact on pupils' ability to work. (See Table 17).

Therefore, it may be that the perceived influence of an interruption on morale and work is somewhat dependent upon the nature of that interruption.

Educational Significance

The results of this study which describes environmental factors that can influence classroom management and the allotment of instructional time could have implications for the teaching act. Information reported here concerning perceived influence of school-generated interruptions on morale and work may reflect teacher and pupil attitudes toward the school as a workplace; and, this could have implications for elementary school management, supervision and procedures. Researchers interested in determining whether certain features of the classroom environment influence the learning climate or individual performance would find these data useful.

BIBLIOGRAPHY

Barker, Roger G. Ecological psychology. Stanford: Stanford University Press, 1968

Brackup, Ellen S., & Knopf, Irwin J. The effects of extraneous speech on visual vigilance performance of children. Child Development, 1978, 49, 505-508.

Bronfenbrenner, Urie. The experimental ecology of education. Educational Researcher, 1976, 5(9), 5-15.

Doyle, Walter, & Ponder, Gerald A. Classroom ecology: Some concerns about a neglected dimension of research on teaching. Contemporary Education, 1975, XLVI, 3.

Fowler, Susan A. Ecological considerations in the education and integration of young handicapped children. Wichita, Kansas: Kansas Research Institute for Early Childhood Education of the Handicapped, University of Kansas, 1978. (ERIC Clearinghous, Research in Education Reproduction Service).

Glass, David C. & Singer, Jerome E. Experimental studies of uncontrollable and unpredictable noise. Representative Research in Social Psychology, 1972, 4, 165-183.

Grannis, Joseph C. Community, competence, and individuation: The effects of different controls in educational environments. IRCD Bulletin, 1975, X, 2

Gump, Paul V. The classroom behavior setting: Its nature and relation to student behavior. Washington, D.C.: United States Department of Health, Education, and Welfare, Office of Education, Bureau of Research, 1967.

Gump, Paul V. Intra-setting analysis: The third grade classroom as a special but instructive case. In E. P. Williams & H. L. Raush (Eds.), Naturalistic Viewpoints in Psychological Research. New York: Holt, Rinehart, and Winston, 1969.

IR & DT (Interactive Research and Development on Teaching Team). Coping with classroom distractions. San Francisco: Far West Laboratory for Educational Research and Development, 1979.

Kounin, Jacob S. Discipline and group management in classrooms. New York: Holt, Rinehart and Winston, 1970

Lofchie, Stanley H. The performance of adults under distraction stress: A developmental approach. (Doctoral dissertation, Clark University, 1953). Dissertation Abstracts International, 1953, 13, 865A.

Lortie, Dan C. Schoolteacher. Chicago: The University of Chicago Press, 1975.

Nober, Linda Weissbrodt. A study of classroom noise as a factor which affects the auditory discrimination performance of primary grade children. (Doctoral dissertation, University of Massachusetts, 1973). Dissertation Abstracts International, 1973, 33, 6756A.

Price, Jack Albert. The influence of three listening environment factors on listening comprehension of fourth-grade students. Unpublished doctoral dissertation, North Texas State University, 1969.

Slater, Barbara Ruth. The effects of noise on pupil performance. Unpublished doctoral dissertation, University of Michigan, 1980.

Smith, Louis M. & Geoffrey, William. The complexities of an urban classroom. New York: Holt, Rinehart, and Winston, Inc., 1968.

Steinkamp, Marjorie W. Relationships between environmental distractions and task performance of hyperactive and normal children. Journal of Learning Disabilities, 1980, 13, 209-214.

Tikunoff, William J., Berliner, David C., & Rist, Ray C. An ethnographic study of the forty classrooms of the beginning teacher evaluation study known sample. San Francisco: Far West Laboratory for Educational Research and Development, 1975.

Twiton, Elizabeth M., & Anderson, Ernest R. Performance decrements following stress: Learned helplessness, passive uncontrollability, or distrust? Washington, D.C.: National Institute of Education, Department of H.E.W., 1979.

Werner, C. Sue, & Simpson, Richard L. Attention to task and completion of work as a function of level of adjustment and educational environment. Journal of Educational Research, 1974, 68, 56-58.

Table 1

Frequency Distributions of Teacher Perceptions of the Frequency of Occurrence Per Day Associated with Three Interruption Types

Perceived Frequency of Occurrence Per Day	Number of Respondents with Respect to:		
	Out-of-Class Instruction	Visitors	Intercommunication System
0	9	1	3
1	22	15	23
2	21	10	14
3	9	16	16
4	--	6	3
5	3	7	2
6	1	3	1
7-17	--	7	2
$\bar{X}$	1.72	3.49	2.48
SD	1.28	2.72	2.49

Table 2

Frequency Distributions of Teacher Perceptions of the Distraction Elimination Time (in minutes) Associated with Each of Three Interruption Types

Perceived Distraction Elimination Time (in minutes)	Number of Respondents with Respect to:		
	Out-of-Class Instruction	Visitors	Intercommunication System
0	9	1	3
1	23	13	24
2	14	19	10
3	4	10	15
4	3	2	1
5	8	10	6
6	--	1	--
7	--	--	--
8	2	1	--
9	--	--	--
10	2	5	5
11-20	--	3	1
$\bar{X}$	2.32	3.89	2.89
SD	2.31	3.80	2.92

Table 3

Frequency Distributions of Pupil Perceptions of the Frequency of Occurrence Per Day Associated with Three Interruption Types

Perceived Frequency of Occurrence Per Day	Number of Respondents with Respect to:		
	Out-of-Class Instruction	Visitors	Intercommunication System
0	5	--	5
1	17	5	6
2	16	10	15
3	13	17	14
4	3	8	11
5	5	16	7
6	--	2	--
7	2	1	--
8-20	--	3	5
50	1	--	--
$\bar{X}$	3.05	3.90	3.47
SD	6.46	2.27	3.34

Table 4

Frequency Distributions of Pupil Perceptions of the Distraction Elimination Time (in minutes) Associated with Each of Three Interruption Types

Perceived Distraction Elimination Time (in minutes)	Number of Respondents with Respect to:		
	Out-of-Class Instruction	Visitors	Intercommunication System
0	8	--	5
1	18	21	23
2	13	14	10
3	7	8	8
4	3	1	3
5	5	6	10
6	1	1	1
7	1	1	--
8	--	--	--
9	--	1	--
10	3	8	2
11-20	3	1	--
$\bar{X}$	3.31	3.69	2.50
SD	4.46	3.70	2.15

Table 5

Mann-Whitney U-test:
Comparing Teacher and Pupil Perceptions
of Frequency of Occurrence of Three Interruption Types

Interr. Types	Teachers (N = 65) Mean Freq.	Teachers (N = 65) Mean Rank	Pupils (N = 62) Mean Freq.	Pupils (N = 62) Mean Rank	U	Z	p
Out-of Class Inst.	1.72	57.28	3.05	71.04	1578.5	-2.17	*.030
Visitors	3.49	58.43	3.90	69.84	1653	-1.78	.076
Intercom System	2.48	55.45	3.47	72.97	1459	-2.74	**.006

*p = .05

**p = .01

***p = .001

Table 6

Mann-Whitney U-tests
Comparing Teacher and Pupil Perceptions
of the Distraction Elimination Time (DET)
Associated with Three Interruption Types

Interr. Types	Teachers (N = 65) Mean DET	Teachers (N = 65) Mean Rank	Pupils (N = 62) Mean DET	Pupils (N = 62) Mean Rank	U	Z	p
Out-of Class Inst.	2.32	61.21	3.31	66.93	1833.5	-.89	.37
Visitors	3.89	66.64	3.69	61.23	1843.5	-.85	.398
Intercom System	2.89	65.34	2.50	62.60	1928	-.433	.665

*p = .05

**p = .01

***p = .001

Table 7

Frequency Distributions of
Teacher Perceptions of Effect of Out-of-Class
Pupil Instruction on Teacher Morale and Work

No.	Item	Strongly Agree		Mod. Agree		Response Uncert.		Mod. Disag.		Strongly Disag.		*Not Applic.	
		N	%	N	%	N	%	N	%	N	%	N	%
	Morale												
1.	Work with others	5	8.9	10	17.9	7	12.5	7	12.5	27	48.2	9	13.6
2.	Loyalty to school.	0	0	6	10.7	10	17.9	8	14.3	32	57.1	9	13.6
3.	Admin. judgment.	8	14.3	7	12.5	4	7.1	4	7.1	33	58.9	9	13.6
4.	Extra time; effort.	9	16.1	9	16.1	2	3.6	5	8.9	31	55.4	9	13.6
5.	Sense of enjoyment.	11	19.6	7	12.5	3	5.4	7	12.5	28	50	9	13.6
6.	Predict events.	12	21.4	17	30.4	0	0	3	5.4	24	42.9	9	13.6
7.	Sense of accomplishment.	10	17.9	10	17.9	5	8.9	7	12.5	24	42.9	9	13.6
	Work												
1.	Plan, organize work.	17	30.4	11	19.6	0	0	8	14.3	20	35.7	9	13.6
2.	Pupil inst. behavior.	14	25	12	21.4	1	1.8	7	12.5	22	39.3	9	13.6
3.	Pupil soc. behavior.	9	16.1	14	25	2	3.6	8	14.3	23	41.1	9	13.6
4.	Prep.; implement; assess work.	12	21.4	16	28.6	2	3.6	7	12.5	19	33.9	9	13.6
5.	Interact with pupils.	6	10.7	8	14.3	3	5.4	6	10.7	33	58.9	9	13.6
6.	Allot; use time.	13	23.2	15	26.8	0	0	7	12.5	21	37.5	9	13.6
7.	Individualize inst.	12	21.4	12	21.4	0	0	7	12.5	25	44.6	9	13.6
8.	Distraction fr. work.	14	25	9	16.1	1	1.8	7	12.5	25	44.6	9	13.6

*N = 65

Table 8

Frequency Distributions of
Teacher Perceptions of Effect of Visitors
on Teacher Morale and Work

No.	Item	Strongly Agree		Mod. Agree		Response Uncert.		Mod. Disag.		Strongly Disag.		*Not Applic.	
		N	%	N	%	N	%	N	%	N	%	N	%
	Morale												
1.	Work with others.	9	14.1	14	21.9	5	7.8	5	7.8	31	48.4	1	1.5
2.	Loyalty to school.	6	9.4	11	17.2	8	12.5	6	9.4	33	51.6	1	1.5
3.	Admin. judgment.	16	25	12	18.8	4	6.3	10	15.6	22	34.4	1	1.5
4.	Extra time; effort.	11	17.2	15	23.4	3	4.7	16	25	19	29.7	1	1.5
5.	Sense of enjoyment.	13	20.3	10	15.6	7	10.9	4	6.3	30	46.9	1	1.5
6.	Predict events.	19	29.7	18	28.1	2	3.1	7	10.9	18	28.1	1	1.5
7.	Sense of accomplishment.	15	23.4	8	12.5	7	10.9	8	12.5	26	40.6	1	1.5
	Work												
1.	Plan, organize work.	19	29.7	16	25	1	1.6	9	14.1	19	29.7	1	1.5
2.	Pupil inst. behavior.	22	34.4	15	23.4	1	1.6	15	23.4	11	17.2	1	1.5
3.	Pupil soc. behavior.	20	31.3	20	31.3	1	1.6	15	23.4	8	12.5	1	1.5
4.	Prep.; implement; assess work.	17	26.6	11	17.2	2	3.1	9	14.1	25	39.1	1	1.5
5.	Interact with pupils.	19	29.7	16	25	5	7.8	10	15.6	14	21.9	1	1.5
6.	Allot; use time.	19	29.7	19	29.7	2	3.1	9	14.1	15	23.4	1	1.5
7.	Individualize inst.	20	31.3	11	17.2	5	7.8	8	12.5	20	31.3	1	1.5
8.	Distraction fr. work.	33	51.6	16	25	1	1.6	7	10.9	7	10.9	1	1.5

*N = 65

Table 9

Frequency Distributions of
Teacher Perceptions of the Intercommunication System
on Teacher Morale and Work

No.	Item	Strongly Agree		Mod. Agree		Response Uncert.		Mod. Disag.		Strongly Disag.		*Not Applic.	
		N	%	N	%	N	%	N	%	N	%	N	%
	Morale												
1.	Work with others.	4	6.5	6	9.7	7	11.3	2	3.2	43	69.4	3	4.6
2.	Loyalty to school.	3	4.8	5	8.1	5	8.1	8	12.9	41	66.1	3	4.6
3.	Admin. judgment.	12	19.4	9	14.5	2	3.2	8	12.9	31	50	3	4.6
4.	Extra time; effort.	4	6.5	4	6.5	7	11.3	10	16.1	37	59.7	3	4.6
5.	Sense of enjoyment.	7	11.3	10	16.1	2	3.2	11	17.7	32	51.6	3	4.6
6.	Predict events.	9	14.5	8	12.9	3	4.8	11	17.7	31	50	3	4.6
7.	Sense of accomplishment	8	12.9	4	6.5	3	4.8	8	12.9	39	62.9	3	4.6
	Work												
1.	Plan, organize work.	9	14.5	9	14.5	4	6.5	11	17.7	29	46.8	3	4.6
2.	Pupil inst. behavior.	13	21	7	11.3	3	4.8	13	21	26	41.9	3	4.6
3.	Pupil soc. behavior.	9	14.5	16	25.8	2	3.2	13	21	22	35.5	3	4.6
4.	Prep.; implement; assess work.	7	11.3	9	14.5	2	3.2	10	16.1	34	54.8	3	4.6
5.	Interact with pupils.	10	16.1	11	17.7	2	3.2	11	17.7	8	45.2	3	4.6
6.	Allot; use time.	11	17.7	11	17.7	2	3.2	11	17.7	27	43.5	3	4.6
7.	Individualize inst.	7	11.3	14	22.6	2	3.2	12	19.4	27	43.5	3	4.6
8.	Distraction fr. work.	21	33.9	15	24.2	0	0	7	11.3	19	30.6	3	4.6

*N = 65

Table 10

Frequency Distributions of
Pupil Perceptions of Effect of Out-of-Class Pupil Instruction
on Pupil Morale and Work

No.	Item	Strongly Agree		Mod. Agree		Response Uncert.		Mod. Disag.		Strongly Disag.		*Not Applic.	
		N	%	N	%	N	%	N	%	N	%	N	%
	Morale												
1.	Work with others.	10	17.5	3	5.3	6	10.5	8	14	30	52.6	5	8.1
2.	Loyalty to school.	6	10.5	4	7	12	21.1	8	14	27	47.4	5	8.1
3.	Admin. judgment.	3	5.3	3	7	7	12.3	10	17.5	34	59.6	5	8.1
4.	Extra time; effort.	19	33.3	3	5.3	2	3.5	7	12.3	26	45.6	5	8.1
5.	Sense of enjoyment.	5	8.8	6	10.5	7	12.3	10	17.5	29	50.9	5	8.1
6.	Predict events.	19	33.3	5	8.8	12	21.1	7	12.3	14	24.6	5	8.1
7.	Sense of accomplishment	16	28.1	8	14	3	5.3	5	8.8	25	43.9	5	8.1
	Work												
1.	Plan, organize work.	20	33.3	11	18.3	5	8.3	4	6.7	20	33.3	2	3.2
2.	Do and Finish work.	21	35	6	10	5	8.3	6	10	22	36.7	2	3.2
3.	Pupil soc. behavior.	35	58.3	10	16.7	5	8.3	1	1.7	9	15	2	3.2
4.	Work with teacher in classroom instruct.	16	26.7	6	10	5	8.3	5	8.3	28	46.7	2	3.2
5.	Interact with pupils.	17	28.3	4	6.7	5	8.3	5	8.3	29	48.3	2	3.2
6.	Allot; use time.	22	36.7	10	16.7	5	8.3	7	11.7	16	26.7	2	3.2
7.	Individualize inst.	24	40	10	16.7	3	5	4	6.7	19	31.7	2	3.2
8.	Distraction fr. work.	28	46.7	7	11.7	1	1.7	3	5	21	35	2	3.2

*N = 62

Table 11

Frequency Distributions of
Pupil Perceptions of Effect of Visitors
on Pupil Morale and Work

No.	Item	Strongly Agree N	Strongly Agree %	Mod. Agree N	Mod. Agree %	Response Uncert. N	Response Uncert. %	Mod. Disag. N	Mod. Disag. %	Strongly Disag. N	Strongly Disag. %	*Not Applic. N	*Not Applic. %
	Morale												
1.	Work with others.	15	24.2	7	11.3	9	14.5	5	8.1	26	41.9	0	0
2.	Loyalty to school.	5	8.1	4	6.5	14	22.6	6	9.7	33	53.2	0	0
3.	Admin. judgment.	3	4.8	9	14.5	5	8.1	7	11.3	38	61.3	0	0
4.	Extra time; effort.	11	17.7	14	22.6	7	11.3	8	12.9	22	35.5	0	0
5.	Sense of enjoyment.	4	6.5	10	16.1	11	17.7	7	11.3	30	48.4	0	0
6.	Predict events.	25	40.3	12	19.4	5	8.1	3	4.8	17	27.4	0	0
7.	Sense of accomplishment.	24	38.7	17	27.4	3	4.8	1	1.6	17	27.4	0	0
	Work												
1.	Plan, organize work.	16	25.8	12	19.4	6	9.7	3	4.8	25	40.3	0	0
2.	Do and Finish work.	28	45.2	3	4.8	1	1.6	10	16.1	20	32.3	0	0
3.	Pupil soc. behavior.	48	77.4	8	12.9	4	6.5	1	1.6	1	1.6	0	0
4.	Work with teacher in classroom instruct.	30	48.4	11	17.7	2	3.2	1	1.6	18	29	0	0
5.	Interact with pupils.	9	14.5	8	12.9	3	4.8	9	14.5	33	53.2	0	0
6.	Allot; use time.	27	43.5	10	16.1	1	1.6	5	8.1	19	30.6		0
7.	Individualize inst.	24	38.7	12	19.4	5	8.1	6	9.7	15	24.2	0	0
8.	Distraction fr. work.	24	38.7	11	17.7	4	6.5	2	3.2	20	32.3	0	0

*N = 62

Table 12

Frequency Distributions of
Pupil Perceptions of Effect of Intercommunication System
on Pupil Morale and Work

No.	Item	Strongly Agree N	Strongly Agree %	Mod. Agree N	Mod. Agree %	Response Uncert. N	Response Uncert. %	Mod. Disag. N	Mod. Disag. %	Strongly Disag. N	Strongly Disag. %	*Not Applic. N	*Not Applic. %
	Morale												
1.	Work with others.	10	17.5	10	17.5	4	7	6	10.5	27	47.4	5	8.1
2.	Loyalty to school.	5	8.8	5	8.8	6	10.5	8	14	33	57.9	5	8.1
3.	Admin. judgment.	2	3.5	9	15.8	9	15.8	4	7	33	57.9	5	8.1
4.	Extra time; effort.	15	26.3	7	12.3	8	14	3	5.3	24	42.1	5	8.1
5.	Sense of enjoyment.	4	7	8	14	7	12.3	7	12.3	31	54.4	5	8.1
6.	Predict events.	14	24.6	5	8.8	11	19.3	7	12.3	20	35.1	5	8.1
7.	Sense of accomplishment.	17	29.8	12	21.1	3	5.3	4	7	21	36.8	5	8.1
	Work												
1.	Plan, organize work.	27	47.4	8	14	2	3.5	5	8.8	15	26.3	5	8.1
2.	Do and Finish work.	23	40.4	7	12.3	6	10.5	4	7	17	29.8	5	8.1
3.	Pupil soc. behavior.	27	47.4	8	14	4	7	8	14	10	17.5	5	8.1
4.	Work with teacher in classroom instruct.	25	43.9	4	7	4	7	10	17.5	14	24.6	5	8.1
5.	Interact with pupils.	13	22.8	8	14	5	8.8	8	14	23	40.4	5	8.1
6.	Allot; use time.	27	47.4	7	12.3	3	5.3	6	10.5	14	24.6	5	8.1
7.	Individualize inst.	19	33.3	3	5.3	8	14	5	8.8	22	38.6	5	8.1
8.	Distraction fr. work.	20	35.1	14	24.6	7	12.3	2	3.5	14	24.6	5	8.1

*N = 62

Table 13

Mann-Whitney U-tests Comparing
Teacher and Pupil Perceptions of the Effect
of Out-of-Class Pupil Instruction
on Morale and Work

Variable	Group						
	Teachers		Pupils				
	N	X	N	X	U	Z	p
Morale							
1. Desire wk./w others.	56	3.73	57	3.79	1547	.30	.762
2. Loyalty to school.	56	4.18	57	3.81	1384	1.32	.186
3. Judgment of admin.	56	3.84	57	4.21	1473.5	.79	.428
4. Extra time; effort.	56	3.71	57	3.32	1374.5	1.38	.169
5. Enjoyment; well-being.	56	3.61	57	3.91	1478	.73	.466
6. Predict activities.	56	3.17	57	2.86	1394	1.20	.230
7. Sense of accomplishment.	56	3.44	57	3.26	1510	.50	.603
Work							
1. Plan, organize work.	56	3.05	60	2.88	1605.5	.43	.668
2. Pupil instruct. behav.	56	3.2	60	3.03	1572.5	.62	.534
3. Pupil soc. behavior.	56	3.39	60	1.98	867	4.7	.000***
4. Prep.; impl.; assess wk.	56	3.09	60	3.38	1529.5	.87	.384
5. Teacher/pupil interac.	56	3.93	60	3.42	1414	1.61	.108
6. Allot; use time.	56	3.14	60	2.75	1436.5	1.40	.163
7. Individualized inst.	56	3.38	60	2.73	1332.5	2.02	.044*
8. Distraction fr. work.	56	3.36	60	2.70	1345	1.97	.049*

*$p < .05$
**$p < .01$
***$p < .001$

Table 14

Mann-Whitney U-tests Comparing
Teacher and Pupil Perceptions of the
Effect of Visitors on Morale and Work

Variable	Group						
	Teachers		Pupils				
	N	X̄	N	X̄	U	Z	p
Morale							
1. Desire wk./w others.	64	3.55	62	3.22	1822	.83	.405
2. Loyalty to school.	64	3.76	62	3.94	1877.5	.56	.572
3. Judgment of admin.	64	3.16	62	4.09	1323.	3.44	.001***
4. Extra time; effort.	64	3.27	62	3.25	1961	.12	.908
5. Enjoyment; well-being.	64	3.44	62	3.79	1776.5	1.08	.281
6. Predict activities.	64	2.80	62	2.60	1826	.80	.422
7. Sense of accomplishment.	64	3.34	62	2.52	1483.5	2.54	.011*
Work							
1. Plan, organize work.	64	2.89	62	3.15	1795	.96	.337
2. Pupil instruct. behav.	64	2.66	62	2.85	1909	.38	.702
3. Pupil soc. behavior.	64	2.55	62	1.37	990.5	5.32	.000***
4. Prep.; impl.; assess wk.	64	3.22	62	2.45	1522	2.37	.018*
5. Teacher/pupil interac.	64	2.75	62	3.79	1268	3.63	.000*
6. Allot; use time.	64	2.72	62	2.66	1876.5	.55	.584
7. Individualized inst.	64	2.95	62	2.61	1763.5	1.12	.264
8. Distraction fr. work.	64	2.05	62	2.68	1606	1.97	.050*

*$p < .05$
**$p < .01$
***$p < .001$

Table 15

Mann-Whitney U-tests Comparing
Teacher and Pupil Perceptions of the
Effect of the Intercommunication System
on Morale and Work

Variable	Group						
	Teachers		Pupils				
	N	$\bar{X}$	N	$\bar{X}$	U	Z	p
Morale							
1. Desire wk./w others.	62	4.19	57	3.53	1345.5	2.52	.012*
2. Loyalty to school.	62	4.27	57	4.04	1603.5	1	.317
3. Judgment of admin.	62	3.60	57	4	1533	1.36	.174
4. Extra time; effort.	62	4.16	57	3.25	1268	2.87	.004*
5. Enjoyment; well-being.	62	3.82	57	3.93	1700.5	.39	.7
6. Predict activities.	62	3.76	57	3.25	1440	1.83	.068
7. Sense of accomplishment.	62	4.06	57	3	1197	3.27	.001***
Work							
1. Plan, organize work.	62	3.68	57	2.53	1119.5	3.6	.000***
2. Pupil instruct. behav.	62	3.52	57	2.74	1345	2.34	.019*
3. Pupil soc. behavior.	62	3.37	57	2.40	1139.5	3.44	.001***
4. Prep.; impl.; assess wk.	62	3.89	57	2.72	1061.5	3.94	.000***
5. Teacher/pupil interac.	62	3.58	57	3.35	1631	.076	.447
6. Allot; use time.	62	3.51	57	2.53	1189	3.21	.001***
7. Individualized inst.	62	3.61	57	3.14	1496.5	1.506	.132
8. Distraction fr. work.	62	2.81	57	2.58	1675	.51	.610

*$p < .05$
**$p < .01$
***$p < .001$

Table 16

Wilcoxon Tests for Significance of Differences
in Teacher Perceptions of the Effects
of Three Interruption Types
on Morale and Work

Variable	Mean Score: Pullout Programs	Visitors	Intercom.	Wilcoxon Test Comparing: Pullouts w/ Visitors Z	p	Pullouts w/ Intercom. Z	p	Visitors w/ Intercom. Z	p
Morale									
1. Desire work with others.	3.73	3.55	4.19	1.33	.183	2.33	<.020*	3.25	<.001***
2. Loyalty to school.	4.18	3.76	4.27	2.68	<.007**	.42	.673	3.02	<.002**
3. Judgment of administrat.	3.84	3.16	3.6	2.79	<.005**	1.41	.159	1.95	.052
4. Extra time and effort.	3.71	3.27	4.16	1.94	.052	1.64	.1	4.08	<.000***
5. Enjoyment; well-being.	3.61	3.44	3.82	1.4	.161	.66	.511	1.54	.124
6. Predict activities.	3.18	2.80	3.76	1.52	.130	2.23	<.025*	4.25	<.000***
7. Sense of accomplishment.	3.45	3.34	4.07	.51	.614	2.26	<.024*	3.38	<.001***
Work									
1. Plan and organize work.	3.05	2.89	3.68	1.03	.305	1.48	1.38	4.03	<.000***
2. Pupil instruct. behav.	3.02	2.66	3.52	2.20	<.028*	.73	.466	3.70	<.000***
3. Pupil social behavior.	3.39	2.55	3.37	3.58	<.000***	.7	.484	3.41	<.000***
4. Prep.;impl.;assess wk.	3.09	3.22	3.89	.12	.902	2.49	<.013*	3.03	<.002**
5. Pupil interaction.	3.93	2.75	3.58	4.29	<.000***	2.08	<.037*	3.49	<.000***
6. Allot and use time.	3.14	2.72	3.52	1.90	.057	.60	.551	3.19	<.001***
7. Individualized instruct.	3.38	2.95	3.61	1.58	.114	.22	.829	2.77	<.006**
8. Distraction from work.	3.36	2.05	2.81	4.31	<.000***	2.10	<.036*	3.26	<.001***

*$p < .05$
**$p < .01$
***$p < .001$

Table 17

Wilcoxon Tests for Significance of Differences
in Pupil Perceptions of the Effects
of Three Interruption Types
on Morale and Work

Variable	Mean Score			Wilcoxon Test Comparing					
	Pullout Programs	Visitors	Intercom.	Pullouts w/ Visitors		Pullouts w/ Intercom.		Visitors w/ Intercom.	
				Z	p	Z	p	Z	p
Morale									
1. Desire work with others.	3.79	3.32	3.53	2.60	<.009**	.83	4.07	1.23	.219
2. Loyalty to school.	3.81	3.94	4.04	.07	.948	.44	.658	.30	.762
3. Judgment of administrat.	4.21	4.10	4	1.02	.06	2.36	<.018*	.05	.964
4. Extra time and effort.	3.32	3.26	3.25	.59	.558	.95	.343	.53	.597
5. Enjoyment in school.	3.91	3.79	3.93	.77	.441	.49	.627	.60	.549
6. Predict activities.	2.86	2.60	3.25	1.34	.179	1.14	.256	2.04	<.042*
7. Sense of accomplishment.	3.26	2.52	3	3.01	<.003**	1.44	.151	1.68	.093
Work									
1. Plan and organize work.	2.88	3.15	2.53	.97	.335	2.37	<.018*	2.60	<.009*
2. Do and finish work.	3.03	2.86	2.74	1.04	.299	2.10	<.036*	1	.316
3. Pupil social behavior.	1.98	1.37	2.40	2.53	<.011*	2.41	<.016*	3.81	<.000***
4. Work with teacher.	3.38	2.45	2.72	3.24	<.001***	2.32	<.026*	.81	.416
5. Talk,wk.,play/w child.	3.42	3.79	3.35	1.36	.175	.88	.378	1.82	.069
6. Amt./time spent in wk.	2.75	2.66	2.53	.62	.537	1.24	.216	.77	.439
7. Pers. attn. fr. teach.	2.73	2.61	3.14	.81	.421	.91	.364	2.26	<.024*
8. Distraction from work.	2.70	2.68	2.58	.1	.992	.97	.334	.08	.933

*$p < .05$
**$p < .01$
***$p < .001$

Table 18

Spearman Correlations Relating
Frequency of Occurrence and Distraction Elimination Time
for Three Interruption Types to Teacher Perceptions
of Effect on Morale and Work

	Interruption Type											
	Pullout Programs				Visitors				Intercom. System			
Item:	Frequency of Occurrence		Distraction Elimination Time		Frequency of Occurrence		Distraction Elimination Time		Frequency of Occurrence		Distraction Elimination Time	
Morale	N	r	N	r	N	r	N	r	N	r	N	r
1. Work with others.	56	-.11	56	-.21	64	-.31	64	-.18	62	-.43	62	-.45
2. Feelings of loyalty.	56	-.11	56	-.38	64	-.25	64	-.12	62	-.43	62	-.33
3. Judgment of admin.	56	-.10	56	-.49	64	-.18	64	-.13	62	-.55	62	-.46
4. Extra time;effort.	56	-.22	56	-.32	64	-.28	64	-.20	62	-.57	62	-.40
5. Enjoymnt;well-being.	56	-.19	56	-.29	64	-.35	64	.01	62	-.46	62	-.51
6. Predict activities.	56	-.18	56	-.35	64	-.23	64	-.19	62	-.41	62	-.52
7. Sense of accomplish.	56	-.11	56	-.35	64	-.35	64	-.09	62	-.48	62	-.35
Work												
1. Plan and organize.	56	-.10	56	-.49	64	-.37	64	-.27	62	-.50	62	-.35
2. Pupil instr. behav.	56	-.06	56	-.45	64	-.40	64	-.24	62	-.45	62	-.34
3. Pupil social behav.	56	-.10	56	-.44	64	-.39	64	-.13	62	-.44	62	-.53
4. Prep.;imp.;assess.	56	-.14	56	-.46	64	-.29	64	-.14	62	-.36	62	-.38
5. Interact/w pupils.	56	-.21	56	-.41	64	-.20	64	-.20	62	-.26	62	-.41
6. Allot; use time.	56	-.13	56	-.39	64	-.28	64	-.14	62	-.55	62	-.40
7. Individualized inst.	56	-.24	56	-.32	64	-.20	64	-.18	62	-.42	62	-.51
8. Distract. from wk.	56	-.22	56	-.44	64	-.42	64	-.29	62	-.51	62	-.61

	Frequency of Occurrence		Distraction Elimination Time		Frequency of Occurrence		Distraction Elimination Time		Frequency of Occurrence		Distraction Elimination Time	
Morale	N	p	N	p	N	p	N	p	N	p	N	p
1. Work with others.		.217		.063		.006***		.081		.001***		.001***
2. Feelings of loyalty.		.204		.002**		.024*		.166		.001***		.004***
3. Judgment of admin.		.237		.001***		.073		.145		.001***		.001***
4. Extra time;effort.		.053		.001***		.012*		.058		.001***		.001***
5. Enjoymnt;well-being.		.077		.016*		.002**		.483		.001***		.001***
6. Predict activities.		.089		.004**		.036*		.064		.001***		.001***
7. Sense of accomplish.		.206		.004**		.002**		.251		.001***		.000***
Work												
1. Plan and organize.		.224		.001***		.001***		.016		.001***		.003**
2. Pupil instr. behav.		.335		.001***		.001***		.030		.001***		.003**
3. Pupil social behav.		.226		.001***		.001***		.149		.001***		.001***
4. Prep.;imp.;assess.		.149		.001***		.010***		.135		.002**		.001***
5. Interact/w pupils.		.065		.001***		.055		.055		.021*		.001***
6. Allot; use time.		.172		.001***		.012*		.135		.001***		.001***
7. Individualized inst.		.037		.008**		.058		.073		.001***		.001***
8. Distract. from wk.		.055		.001***		.001***		.011		.001***		.001***

*$p < .05$
**$p < .01$
***$p < .001$

Table 19

Spearman Correlations Relating
Frequency of Occurrence and Distraction Elimination Time
for Three Interruption Types to Pupil Perceptions
of Effect on Morale and Work

Item:	Interruption Type: Pullout Programs — Frequency of Occurrence N	r	p	Pullout Programs — Distraction Elimination Time N	r	p	Visitors — Frequency of Occurrence N	r	p	Visitors — Distraction Elimination Time N	r	p	Intercom. System — Frequency of Occurrence N	r	p	Intercom. System — Distraction Elimination Time N	r	p
Morale																		
1. Work with others.	57	-.36	.003**	57	-.09	.264	62	.11	.195	62	-.14	.140	57	.16	.110	57	-.40	.001***
2. Loyalty to school.	57	-.33	.006**	57	-.20	.072	62	-.21	.051	62	.14	.134	57	.00	.497	57	-.16	.117
3. Judgment of princ.	57	-.35	.004**	57	-.07	.279	62	-.19	.07	62	.20	.064	57	.02	.428	57	-.17	.105
4. Extra time;effort.	57	-.27	.021*	57	-.09	.264	62	.09	.252	62	-.16	.102	57	.20	.070	57	-.30	.012*
5. Enjoymnt;well-being.	57	-.31	.010**	57	-.04	.381	62	-.22	.044	62	-.22	.045*	57	.02	.447	57	-.24	.035*
6. Predict activities.	57	-.33	.006**	57	-.03	.431	62	-.01	.483	62	-.06	.312	57	-.05	.349	57	-.04	.379
7. Sense of accomplish.	57	.11	.217	57	-.17	.099	62	.02	.451	62	.09	.242	57	-.02	.451	57	-.14	.145
Work																		
1. Plan and organize.	60	.13	.168	60	-.32	.006**	62	-.08	.280	62	-.16	.111	57	.05	.350	57	-.02	.450
2. Do and finish wk.	60	-.09	.237	60	-.29	.011*	62	-.09	.253	62	-.01	.494	57	-.03	.411	57	.21	.060
3. Way pupils behav.	60	-.20	.062	60	.05	.340	62	.19	.072	62	-.06	.321	57	.29	.013*	57	-.08	.284
4. Wk. with teacher.	60	-.08	.280	60	-.24	.035*	62	.12	.171	62	-.13	.158	57	-.05	.361	57	.11	.213
5. Tlk;wk.;play:others.	60	-.04	.369	60	-.07	.292	62	.05	.337	62	-.10	.220	57	.02	.447	57	.12	.183
6. Allot; use time.	60	-.07	.298	60	-.24	.030*	62	-.01	.482	62	.02	.428	57	.10	.230	57	-.05	.344
7. Individualized inst.	60	-.06	.317	60	-.32	.006*	62	.21	.048*	62	.05	.348	57	-.04	.376	57	-.03	.415
8. Distract. from wk.	60	-.18	.083	60	-.19	.077	62	-.14	.136	62	.02	.427	57	-.07	.294	57	.16	.125

*$p < .05$
**$p < .01$
***$p < .001$